

Amendments to the Claims:

Please cancel claims 1-9 presented in the underlying International Application No. PCT/EP03/02381, and add new claims 10-28 as shown in the listing of claims.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-9 (canceled)

Claim 10 (new): A circuit breaker comprising:

① a main contactor;

a current detector configured to provide test signals of a current to be monitored via the main contactor;

② a microprocessor-controlled tripping device including a microprocessor and a watchdog circuit configured to monitor the microprocessor, the tripping device being configured to receive energy from the current detector, to process the test signals and to activate a tripping coil so as to automatically open the main contactor when a settable limit value is exceeded;

④ a bypass circuit configured to receive energy from the current detector and including a high pass filter connected downstream from the watchdog circuit, a first semiconductor switch connected downstream from the high pass filter, a charging capacitor dischargeable via the first semiconductor switch, and a voltage comparator having a first input, a second input and an output side, the voltage comparator being connected via the first input to the current detector and on the output side to the charging capacitor;

⑧ a monitoring circuit configured to apply a first reference voltage to the second input of the comparator when a supply voltage is below a pre-defined threshold level and to apply a second reference voltage to the second input of the comparator when the supply voltage is above

first ref. voltage - switch is open
second ref. voltage - switch is closed

the pre-defined threshold level, the first reference voltage being associated with a first current limit value and the second reference voltage being associated with a second current limit value that is smaller than the first current limit value; and

an actuation circuit connected on an output side thereof to the tripping coil and configured to be actuated via a first OR-input by the tripping device and via a second OR-input by the charging capacitor as a function of a state of charge of the charging capacitor.

✓ Claim 11 (new): The circuit breaker as recited in claim 10 wherein first current limit value corresponds to a maximum settable limit value for a tripping current of the circuit breaker.

✓ Claim 12 (new): The circuit breaker as recited in claim 10 wherein the monitoring circuit is configured to apply the first reference voltage to the second input of the voltage comparator before a lapsing of a threshold time calculated from a time when the circuit breaker is switched on and to apply the second reference voltage to the second input of the comparator after the lapsing of the threshold time.

✓ Claim 13 (new): The circuit breaker as recited in claim 10 wherein the bypass circuit includes a first pulse shaper stage connected between the high pass filter and the first semiconductor switch.

✓ Claim 14 (new): The circuit breaker as recited in claim 10 wherein the bypass circuit includes a second pulse shaper stage connected between the charging capacitor and the actuation circuit.

✓ Claim 15 (new): The circuit breaker as recited in claim 10 wherein the bypass circuit

includes an electronic change-over switch capable of being switched over by the monitoring circuit, the monitoring circuit being configured to feed the first and the second reference voltages to the comparator via the electronic change-over switch .

✓ Claim 16 (new): The circuit breaker as recited in claim 10 wherein the watchdog circuit is configured to provide watchdog pulses, and further comprising a pulse suppression device controllable by the monitoring circuit and configured to suppress the watchdog pulses when the supply voltage is below the pre-defined threshold value.

✓ Claim 17 (new): The circuit breaker as recited in claim 16 wherein the pulse suppression device includes a second semiconductor switch connected to an output side of the high pass filter.

✓ Claim 18 (new): The circuit breaker as recited in claim 10 wherein the watchdog circuit is configured to provide watchdog pulses, and further comprising a pulse suppression device configured to suppress the watchdog pulses.

✓ Claim 19 (new): The circuit breaker as recited in claim 18 wherein the pulse suppression device includes a second semiconductor switch connected to an output side of the high pass filter.

✓ Claim 20 (new): A circuit breaker comprising:
a main contactor;
a current detector configured to provide test signals of a current to be monitored via the main contactor;

a microprocessor-controlled tripping device including a microprocessor and a watchdog circuit configured to monitor the microprocessor, the tripping device being configured to receive energy from the current detector, to process the test signals and to activate a tripping coil so as to automatically open the main contactor when a settable limit value is exceeded;

a bypass circuit configured to receive energy from the current detector and including a high pass filter connected downstream from the watchdog circuit, a first semiconductor switch connected downstream from the high pass filter, a charging capacitor dischargeable via the first semiconductor switch, and a voltage comparator having a first input, a second input and an output side, the voltage comparator being connected via the first input to the current detector and on the output side to the charging capacitor;

a monitoring circuit configured to apply a first reference voltage to the second input of the voltage comparator before a lapsing of a threshold time calculated from a time when the circuit breaker is switched on and to apply a second reference voltage to the second input of the comparator after the lapsing of the threshold time, the first reference voltage being associated with a first current limit value and the second reference voltage being associated with a second current limit value that is smaller than the first current limit value; and

an actuation circuit connected on an output side thereof to the tripping coil and configured to be actuated via a first OR-input by the tripping device and via a second OR-input by the charging capacitor as a function of a state of charge of the charging capacitor.

✓ Claim 21 (new): The circuit breaker as recited in claim 20 wherein first current limit value corresponds to a maximum settable limit value for a tripping current of the circuit breaker.

✓ Claim 22 (new): The circuit breaker as recited in claim 20 wherein the bypass circuit includes a first pulse shaper stage connected between the high pass filter and the first semiconductor switch.

✓ Claim 23 (new): The circuit breaker as recited in claim 20 wherein the bypass circuit includes a second pulse shaper stage connected between the charging capacitor and the actuation circuit.

✓ Claim 24 (new): The circuit breaker as recited in claim 20 wherein the bypass circuit includes an electronic change-over switch capable of being switched over by the monitoring circuit, the monitoring circuit being configured to feed the first and the second reference voltages to the comparator via the electronic change-over switch .

✓ Claim 25 (new): The circuit breaker as recited in claim 20 wherein the watchdog circuit is configured to provide watchdog pulses, and further comprising a pulse suppression device controllable by the monitoring circuit and configured to suppress the watchdog pulses when the supply voltage is below the pre-defined threshold value.

✓ Claim 26 (new): The circuit breaker as recited in claim 25 wherein the pulse suppression device includes a second semiconductor switch connected to an output side of the high pass filter.

✓ Claim 27 (new): The circuit breaker as recited in claim 20 wherein the watchdog circuit is configured to provide watchdog pulses, and further comprising a pulse suppression device configured to suppress the watchdog pulses.

Claim 28 (new): The circuit breaker as recited in claim 27 wherein the pulse suppression device includes a second semiconductor switch connected to an output side of the high pass

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filter.